

IN THE CLAIMS

The claims are:

1-58 Canceled.

1 59. (previously presented) An apparatus for use while drilling a borehole, said apparatus
2 comprising:

3 (a) a longitudinal member for rotating a drill bit and adapted to be conveyed
4 in the borehole;

5 (b) an acoustic transmitter on a sleeve slidably coupled to said longitudinal
6 member, and

7 (c) an acoustic receiver spaced apart from said acoustic transmitter, said
8 acoustic transmitter disposed on a sleeve slidably coupled to said
9 longitudinal member.

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1 60. (previously presented) The apparatus of claim 59 wherein said sleeve in (b) is the
2 same as the sleeve in (c).

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1 61. (previously presented) The apparatus of claim 59 wherein said acoustic
2 transmitter comprises a three-component transmitter.

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4 62. (previously presented) The apparatus of claim 59 wherein said acoustic receiver
5 comprises a three-component receiver.

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1 63. (previously presented) The apparatus of claim 59 wherein said acoustic
2 transmitter comprises one of (A) a pulse transmitter, and, (B) a swept frequency
3 transmitter.

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1 64. (previously presented) A method of determining a parameter of interest of an earth
2 formation penetrated by a borehole during drilling operations, the method
3 comprising:

4 (a) conveying a bottom hole assembly (BHA) into the borehole, said BHA
5 including a longitudinal member for rotating a drill bit thereon;
6 (b) maintaining an acoustic transmitter on said BHA in a substantially non-
7 rotating position and propagating acoustic signals into said formation;
8 (c) maintaining an acoustic receiver on said BHA in a substantially non-
9 rotating position and receiving an acoustic signal resulting from
10 interaction of said propagating signals with said formation; and
11 (d) determining from said received acoustic signals said parameter of interest.

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1 65. (previously presented) The method of claim 64 wherein said received acoustic
2 signals comprise reflections from a seismic reflector in the vicinity of said
3 borehole.

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1 66. (previously presented) The method of claim 65 wherein said parameter of interest

2 comprises a distance to said seismic reflector,

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1 67. (previously presented) The method of claim 66 further comprising guiding said
2 BHA at least partially in response to said determined distance.

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1 68. (previously presented) The method of claim 64 further comprising maintaining
2 said acoustic transmitter and said acoustic receiver at a specified distance from
3 each other.

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